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REPORT ON BARK BEETLE CONTROL PROJECT
Bear Valley - Malheur National Forest
1941-1942

I. Organization and Supervision

One crew of men started work November 12, 1941 on section 4, Township 15 South, Range 31 East under the direction of Foremen Kirkwood and Junior Forester Angus. The following week Foreman Cameron and Cardwell were added to the crew. The three foremen each had a crew of approximately 15 men most of the winter. In order to be available for the road construction in the spring, Kirkwood was replaced by Glenn Parsons January 27. Harry O'Neill started work on the bark beetle project February 12 and Frank Trople February 25. These last two crews were added to make certain that the project was finished by March 15.

Tools were left on the job except weekends at which time they were brought to camp and checked for sharpness and condition.

II. Area Covered

The spotters located 1,704 infested trees over an area of 22,260 acres. The townships, ranges, and sections are as follows:

T. 15 S., R. 31 E. - Sections 4, 13, 24, 25, 26, 27, 35
T. 15 S., R. 32 E. - Sections 26, 28, 29, 30, 32, 33, 34, 35
T. 16 S., R. 32 E. - Sections 1, 2, 3, 5, 6, 10, 11, 12, 13
14, 15, 16, 17, 20, 22, 23, 24
T. 16 S., R. 33 E. - Sections 6, 7, 8, 9, 16, 17, 18, 19

The CCC treating crews located 16 more infested trees in the above area.

Area near Bear Valley Ranger Station:

T. 16 S., R. 29 E. - Sections 24, 25, 36
T. 16 S., R. 30 E. - Sections 19, 20, 29, 30, 31, 32
T. 17 S., R. 30 E. - Section 6

Three hundred sixty-three of the infested trees were located in this area. Hines Lumber Company salvaged 252 of

these trees and 3 members of the spotting crew treated the remainder during February. Mr. Dunford of the Hines Lumber Company is to make a complete report on this salvage work and will furnish a copy to the John Day office.

III. Training and Inspection

Mr. Buckhorn of the Bureau of Entomology helped with the initial training November 12 and returned December 3, 1940 for an inspection of the work accomplished. He pronounced himself well satisfied with the progress and quality of the work to date. Mr. Bennett of the Forest Service, JohnDay, and Mr. Dunford, Hines Lumber Company, Seneca, were present on the first day.

Each new crew was started by the foreman in charge and by Mr. Angus. The initial training was followed up by intensive job training and safety training.

IV. Safety

Safety training was stressed at all times. Saws, axes, sledges, wedges, and peavies were the most common tools used. One lost time accident was charged against the project when an enrollee cut his foot and lost seven days. One of the most dangerous periods during the project was the latter part of February. Some of the north slopes were icy with a thin coating of snow and it was nearly impossible to walk without falling. Minor injuries were experienced on all crews during the first week before they learned that their gloves prevented cuts and abrasions from the bark. The enrollees found it difficult to believe the bark could cause such injuries.

V. Costs

Costs (Treating) CCC labor

	CCC funds	S&E
Supervision	$1500.96	1105.00
Enrollee Man Days		
Treating. . . .3945		
Drivers 197		
Overhead added		
by office. . . 338		
Total. .4480	6720.00	
$1.50 per day		

	CCC funds	S&E
Tools, matches, etc.		
6 saws at 8.95. . 53.70		
2 cases matches . 11.00		
1 box wooden wedges 11.52		
Misc. tools and replacements. . . 10.00		
	$ 86.22	
Transportation and use of miscellaneous heavy equipment	366.94	
Sub-total	$8674.12	1105.00
Total		$9779.12

Cost per acre $ .554
Cost per tree 7.531
Cost per M. bd. ft. 10.388

Costs (Spotting) S&E	1895.94
Transportation	40.89
	1936.83

Cost per acre $ .087
Cost per tree 1.126
(See note on Hines Lumber Company report)

Spotters (Treating)	393.27
Transportation	32.90
	426.17

Cost per acre $ .085
Cost per tree 1.08
(See note on Hines Lumber Company report) under area covered)

It will be noted that costs for spotting and treating the trees in this area are quite high. This is mainly due to the trees being scattered over a wide area--approximately 1 tree to 13 acres--and to the rough country. Snow on the north slopes was 8" deep the latter part of November and we found better than 3' of snow on some of the north slopes in February.

It was also necessary to walk long distances to get to some of the more isolated sections.

VI. Accomplishments

Foreman	Crew No.	Sections worked on	Man Days Treating	Grouping of trees 1	2	3	4	Total Trees	Scale in bd. ft.	Ave. Scale	Trees per M. D.	Bd. ft. per M. D.	Remarks
Kirkwood	1	13	580	102	15	7	8	205	120,350	587	.35	211	
Parsons	1 after 1/27	15	495	97	14	2	3	157	125,360	798	.32	253	
Cameron	2	30	1145	155	28	26	8	361	225,580	625	.32	197	
Cardwell	3	29	1187	213	30	15	26	472	336,970	714	.40	284	
O'Neill	4	11	224	41	5	1		54	59,350	1099	.24	265	
TROple	5	5	157	32	9		1	46	47,410	1031	.29	302	
Sec. 4, Vance Cr., Initial Training		1	157	19	4	1		30	26,270	876	.19	167	
Totals & Ave.			945					1325	941,290	710	.36	238	Acreage covered
Spotters	5		28	15	1	1	2	31	18,010	581	1.1	643	17,660 - 40 sections covered, partially or entirely
								1356	959,300				
								1 tree not found					
Spotters (S&E) (treating)	10		64					91	no fig. compiled		1.4		13 acres for each tree (Near Bear Va. R.S.) 4600 acres in 10 different sections

VII. Conclusions and Recommendations

The best organization seems to be three foremen with 15 to 20 men each and a fourth foreman to coordinate the project and act as checker. The fourth foreman can also supervise a crew occasionally when one of the regular men is ill.

The bark beetle project calls for constant job and safety training. A crew does not become efficient in this work for nearly three weeks and then a great deal depends on the supervision and energy displayed by the foreman.

The work in this rough area and during the period when the snow was deep is reflected in the cost sheet. A crew that gets the most trees in one day does not necessarily do the most work. When the trees are scattered in a rough area no crew can get as much accomplished as when the trees are found in groups. In order to get the most efficiency from all crews, it was found necessary to assign the work by area as well as by tree number. This also helped to prevent unnecessary walking and carrying of tools.

It is recommended that on future projects of this type a detailed cost sheet form be worked out so that more accurate cost records may be kept currently.

CHAUNCEY B. ANGUS,
Junior Forester

S and E allotment made for project	$3500
Expenditures reported in the report*	3467
	$ 33

*Supervision	$1105
Spotting	1936
Treating	426
Total	3467